

PRODUCT SPECIFICATION GUIDE

A Comprehensive Battery Selection Guide



 **Trojan**[®]
BATTERY COMPANY
Clean energy for life™

Before getting started:

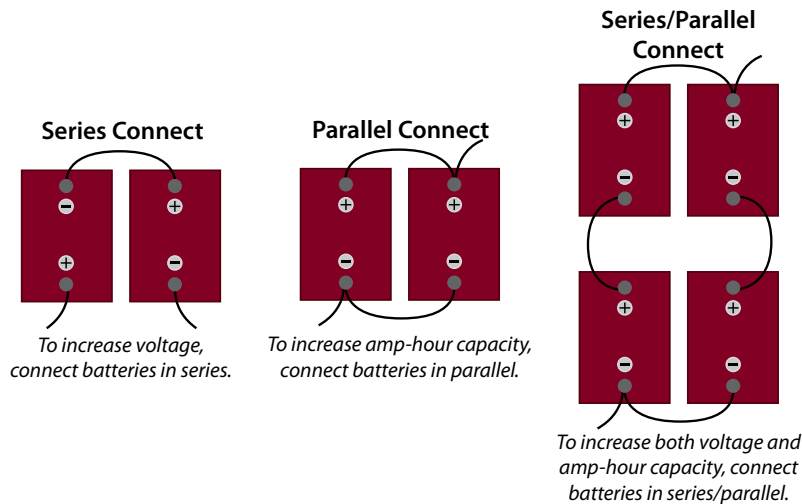
- **Make sure you know your system voltage, battery compartment size (length, width and height) and your energy needs**
- **Determine whether you want to use a deep cycle flooded, Deep-Cycle Gel or Cycling AGM battery**

Step 1: Determine your battery voltage and how many to use

1-1 Based on your system voltage, you must first decide which battery is needed and how many to use in order to meet your requirements. For example, you may connect a series of eight 6V batteries, six 8V batteries or four 12V batteries for a 48-volt system. The size of your battery compartment, your performance requirements and costs may limit your options.

1-2 Make sure there is enough space between batteries to allow for minor battery expansion that occurs during use and to allow proper airflow to keep battery temperature down in hot environments.

TIP: Connecting batteries in series does not increase the capacity of the batteries; it simply increases the overall voltage to meet your system requirements. Once your voltage requirements are met, if space allows you can double the batteries in a parallel connection—thereby doubling your battery capacity. See diagrams below.



Step 2: Choose your best battery model

2-1 When choosing your battery model, first consider your battery compartment space as this may limit your options. Within your size restrictions you may have several battery options to choose from. For example, you can use a T-605, T-105 or T-125 in the same space, as they are the exact same physical size. The difference between these batteries is the amount of energy they have to offer.

2-2 Next consider your energy needs. If replacing an existing battery, use it as a reference point. If your old battery provided enough energy, it can be replaced with a similar capacity battery. If you need more energy you can size up, or if you need less energy you can size down.

TIP: If you do not know what battery to use, contact your equipment manufacturer for their recommended battery specification. Trojan Battery also offers outstanding technical support provided by full-time applications engineers to help you select your ideal batteries.

Step 3: Select your best terminal

3-1 Finally determine which terminal option best meets your needs based on the type of cable connections you plan to use. Look for the terminal(s) available for the battery you have selected.

(Please see the back page of this guide for available terminals to make your selection.)

TIP: Make sure you use the proper cable size when connecting your batteries so that you do not overheat your connections. For information regarding correct wire sizes you can refer to the National Electric Code, Trojan Battery User's Guide, or contact Trojan's live technical support at 800.423.6569.

BCI GROUP SIZE	TYPE	CAPACITY ^A Minutes			CAPACITY ^B Amp-Hours (AH)			ENERGY (kWh)	TERMINAL Type	DIMENSIONS ^C Inches (mm)			WEIGHT lbs. (kg)
		@25 Amps	@56 Amps	@75 Amps	5-Hr Rate	20-Hr Rate	100-Hr Rate			100-Hr Rate	Length	Width	
2 VOLT DEEP CYCLE BATTERIES - with T2 TECHNOLOGY™													
903	L16RE-2V*	-	-	-	909	1110	1235	2.47	5	11-5/8 (295)	7 (178)	17-11/16 (450)	119 (54)
6 VOLT DEEP CYCLE BATTERIES - with T2 TECHNOLOGY™													
GC2	T-605	383	-	105	175	210	232	1.39	1, 2, 3, 4	10-3/8 (264)	7-1/8 (181)	10-7/8 (276)	58 (26)
GC2	T-105	447	-	115	185	225	250	1.50	1, 2, 3, 4, 5	10-3/8 (264)	7-1/8 (181)	10-7/8 (276)	62 (28)
GC2	T-105 Plus	447	-	115	185	225	-	-	1, 2, 3, 4	10-3/8 (264)	7-1/8 (181)	10-11/16 (272)	62 (28)
GC2H	T105-RE	-	-	-	185	225	250	1.50	5	10-3/8 (264)	7-1/8 (181)	11-3/4 (299)	67 (30)
GC2	T-125	488	-	132	195	240	266	1.60	1, 2, 3, 4	10-3/8 (264)	7-1/8 (181)	10-7/8 (276)	66 (30)
GC2	T-125 Plus	488	-	132	195	240	-	-	1, 2, 3, 4	10-3/8 (264)	7-1/8 (181)	10-11/16 (272)	66 (30)
GC2H	T-145	530	-	145	215	260	287	1.72	1, 2, 3, 4	10-3/8 (264)	7-1/8 (181)	11-5/8 (295)	72 (33)
GC2H	T-145 Plus	530	-	145	215	260	-	-	1, 2, 3, 4	10-3/8 (264)	7-1/8 (181)	11-1/2 (292)	72 (33)
DIN	TE35	500	-	135	200	245	271	1.63	8	9-5/8 (244)	7-1/2 (191)	10-7/8 (276)	68 (31)
901	J250G	475	-	130	195	235	-	-	7	11-1/2 (292)	7 (178)	11-7/8 (302)	67 (30)
901	J250P*	540	-	135	215	250	-	-	6	11-11/16 (297)	7 (178)	11-1/2 (292)	72 (33)
902	J305E-AC	645	-	160	250	305	-	-	7	12-1/4 (311)	7 (178)	14-3/8 (365)	83 (38)
902	J305G-AC	678	-	175	258	315	-	-	7	12-1/4 (311)	7 (178)	14-3/8 (365)	88 (40)
902	J305P-AC*	711	-	195	271	330	367	2.20	6	11-5/8 (295)	7 (178)	14-3/8 (365)	96 (44)
902	J305H-AC*	781	-	215	295	360	400	2.40	6	11-5/8 (295)	7 (178)	14-3/8 (365)	98 (45)
903	L16E-AC	766	-	185	303	370	-	-	7	12-1/4 (311)	7 (178)	16-3/8 (417)	100 (46)
903	L16G-AC	789	-	200	320	390	-	-	7	12-1/4 (311)	7 (178)	16-3/8 (417)	107 (49)
903	L16P-AC*	850	-	220	344	420	467	2.80	6	11-5/8 (295)	7 (178)	16-3/4 (424)	114 (52)
903	L16H-AC*	935	-	245	357	435	483	2.89	6	11-5/8 (295)	7 (178)	16-3/4 (424)	125 (57)
903	L16RE-A*	-	-	-	267	325	360	2.16	5	11-5/8 (295)	7 (178)	17-11/16 (450)	115 (52)
903	L16RE-B*	-	-	-	303	370	410	2.46	5	11-5/8 (295)	7 (178)	17-11/16 (450)	118 (54)
8 VOLT DEEP CYCLE BATTERIES - with T2 TECHNOLOGY™													
GC8	T-860	260	90	-	125	150	-	-	1	10-3/8 (264)	7-1/8 (181)	10-7/8 (276)	58 (26)
GC8	T-875	295	117	-	145	170	-	-	1, 2, 3	10-3/8 (264)	7-1/8 (181)	10-7/8 (276)	63 (29)
GC8	T-890	340	132	-	155	190	-	-	1, 2, 3	10-3/8 (264)	7-1/8 (181)	10-7/8 (276)	69 (31)
12 VOLT DEEP CYCLE BATTERIES - with T2 TECHNOLOGY™													
24	24TMX	140	-	36	70	85	94	1.13	5, 9	11-1/4 (286)	6-3/4 (171)	9-3/4 (248)	47 (21)
27	27TMX	175	-	45	85	105	117	1.40	5, 9	12-3/4 (324)	6-3/4 (171)	9-3/4 (248)	55 (25)
27	27TMH	200	-	51	95	115	128	1.54	5, 7, 8, 9	12-3/4 (324)	6-3/4 (171)	9-3/4 (248)	61 (28)
30H	30XHS	225	-	57	105	130	144	1.73	5, 7, 8, 9	13-15/16 (355)	6-3/4 (171)	10-1/16 (256)	66 (30)
30H	31XHS	225	-	57	105	130	-	-	11	13 (330)	6-3/4 (171)	9-1/2 (241)	67 (30)
N/A	T-1260 Plus	260	90	60	113	140	-	-	1	12-7/8 (327)	7-1/8 (181)	10-11/16 (272)	78 (35)
N/A	T-1275	280	102	70	120	150	-	-	1	12-7/8 (327)	7-1/8 (181)	10-7/8 (276)	82 (37)
N/A	T-1275 Plus	280	102	70	120	150	-	-	1	12-7/8 (327)	7-1/8 (181)	10-11/16 (272)	82 (37)
N/A	J150	280	-	70	120	150	166	1.99	1, 2	13-13/16 (351)	7-1/8 (181)	11-1/8 (283)	84 (38)
N/A	J150 Plus	280	-	70	120	150	-	-	1, 2, 3	13-13/16 (351)	7-1/8 (181)	11-1/8 (283)	84 (38)
921	J185E-AC	312	-	82	144	175	-	-	7, 9	15-1/2 (394)	7 (178)	14-5/8 (371)	102 (46)
921	J185G-AC	324	-	93	152	185	-	-	7, 9	15-1/2 (394)	7 (178)	14-5/8 (371)	106 (48)
921	J185P-AC*	380	-	104	168	205	226	2.71	6	15 (381)	7 (178)	14-5/8 (371)	114 (52)
921	J185H-AC*	440	-	121	185	225	249	2.99	6	15 (381)	7 (178)	14-5/8 (371)	128 (58)
N/A	DC-500ML**	1050	-	272	361	450	500	6.00	5, 8	19-1/4 (489)	10-5/8 (270)	16-3/4 (425)	332 (151)
36 VOLT DEEP CYCLE BATTERIES													
N/A	18DC-500ML**	1050	-	272	361	450	-	-	12	35-1/4*** (895)	19-1/8 (486)	16-3/4 (425)	986 (447)

* Polyon™ Case (see back page)
** Unavailable with T2 Technology.
*** Also available in 30-1/4

BCI GROUP SIZE	TYPE	VOLTAGE	CAPACITY ^A Minutes		CAPACITY ^B Amp-Hours (AH)			ENERGY (kWh)	TERMINAL Type	DIMENSIONS ^C Inches (mm)			WEIGHT lbs. (kg)
			@25 Amps	@75 Amps	5-Hr Rate	20-Hr Rate	100-Hr Rate	100-Hr Rate		Length	Width	Height ^F	
DEEP-CYCLE GEL BATTERIES													
GC2	6V-GEL	6 VOLT	394		154	189	198	1.19	7	10-1/4 (260)	7-1/8 (181)	10-7/8 (276)	68 (31)
DIN	TE35-GEL	6 VOLT	-		180	210	220	1.32	5, 8	9-5/8 (244)	7-1/2 (190)	10-7/8 (276)	69 (31)
8D	8D-GEL	12 VOLT	500		188	225	265	3.18	5	21-1/16 (534)	11 (279)	10-13/16 (233)	157 (71)
24	24-GEL	12 VOLT	147		66	77	85	1.02	6, 7	10-7/8 (276)	6-3/4 (171)	9-5/16 (236)	52 (24)
27	27-GEL	12 VOLT	179		76	91	100	1.20	7	12-3/4 (324)	6-3/4 (171)	9-1/4 (234)	63 (29)
31	31-GEL	12 VOLT	200		85	102	108	1.30	7	12-15/16 (329)	6-3/4 (171)	9-5/8 (245)	69 (31)
DIN	5SHP-GEL	12 VOLT	-		110	125	137	1.64	5, 8	13-9/16 (345)	6-3/4 (171)	11-1/8 (283)	85 (39)

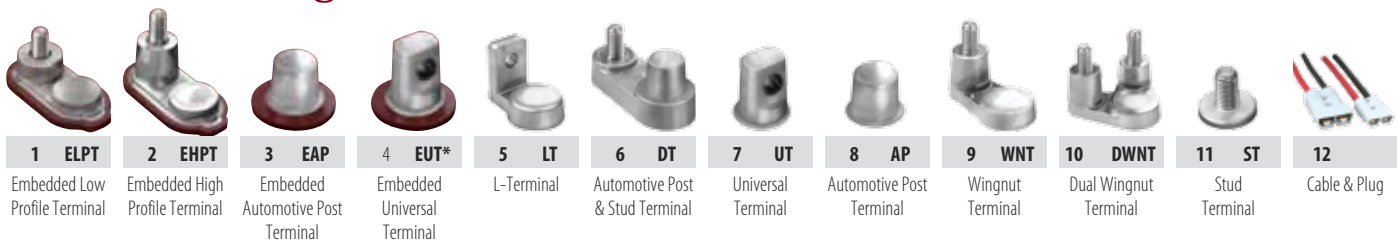
BCI GROUP SIZE	TYPE	VOLTAGE	CAPACITY ^A Minutes		CRANKING Performance		CAPACITY ^B Amp-Hours (AH)			ENERGY (kWh)	TERMINAL Type	DIMENSIONS ^C Inches (mm)			WEIGHT lbs. (kg)
			@25 Amps	@75 Amps	C.C.A. ^D @0°F	C.A. ^E @32°F	5-Hr Rate	20-Hr Rate	100-Hr Rate	100-Hr Rate		Length	Width	Height ^F	
MARINE/RV DEEP CYCLE BATTERIES - with T2 TECHNOLOGY™															
24	SCS150	12 VOLT	150	36	530	650	80	100	-	-	10	11-1/4 (286)	6-3/4 (171)	9-3/4 (248)	50 (23)
27	SCS200	12 VOLT	200	52	620	760	95	115	-	-	10	12-3/4 (324)	6-3/4 (171)	9-3/4 (248)	60 (27)
30H	SCS225	12 VOLT	225	57	665	820	105	130	-	-	10	13-15/16 (355)	6-3/4 (171)	9-7/8 (251)	66 (30)
CYCLING AGM BATTERIES															
24	24-AGM	12 VOLT	137	-	500	600	67	76	84	1.01	6	10-3/4 (274)	6-13/16 (174)	8-11/16 (220)	54 (24)
27	27-AGM	12 VOLT	158	-	550	660	77	89	99	1.19	6	12-9/16 (318)	6-13/16 (174)	8-3/4 (221)	64 (29)
31	31-AGM	12 VOLT	177	-	600	720	82	100	111	1.33	6	13-7/16 (341)	6-13/16 (174)	9-3/16 (233)	69 (31)
31	OverDrive™ AGM 31	12 VOLT	180	-	600	720	84	102	-	-	11	13-7/16 (341)	6-13/16 (174)	9-1/4 (234)	69 (31)
STARTING AGM BATTERY															
31	TransPower™ AGM 31	12 VOLT	200	-	1000	1200	88	102	105	-	11	13-7/16 (341)	6-13/16 (174)	9-1/4 (234)	74.5 (34)
DUAL PURPOSE AGM BATTERIES															
GC2	6V-AGM	6 VOLT	385	-	1100	1400	154	200	221	1.33	6	10-1/4 (260)	7-1/8 (181)	10-3/4 (274)	65 (29)
8D	8D-AGM	12 VOLT	460	-	1450	1850	179	230	254	3.05	6	20-1/2 (521)	10-9/16 (269)	9-3/16 (233)	167 (76)

* Polyon™ Case



- A. The number of minutes a battery can deliver when discharged at a constant rate at 80°F (27°C) and maintain a voltage above 1.75 V/cell. Capacities are based on peak performance.
- B. The amount of amp-hours (AH) a battery can deliver when discharged at a constant rate at 80°F (27°C) for the 20-Hour and 86°F (30°C) for the 5-Hour rate and maintain a voltage above 1.75 V/cell. Capacities are based on peak performance.
- C. Dimensions are based on maximum size. Dimensions may vary depending on type of handle or terminal. Batteries to be mounted with .5 inches (12.7mm) spacing minimum.
- D. C.C.A. (Cold Cranking Amps) - the discharge load in amperes which a new, fully charged battery can maintain for 30 seconds at 0°F at a voltage above 1.2 V/cell.
- E. C.A. (Cranking Amps) - the discharge load in amperes which a new, fully charged battery can maintain for 30 seconds at 32°F at a voltage above 1.2 V/cell. This is sometimes referred to as marine cranking amps @ 32°F or M.C.A. @ 32°F.
- F. Dimensions taken from bottom of the battery to the highest point on the battery. Heights may vary depending on type of terminal.

Terminal Configurations



- | | | | | | | | | | | | |
|------------------------------------------------|-------------------------------------------------|---------------------------------------------------|----------------------------------------------|---------------------------|------------------------------------------------|-----------------------------------|-----------------------------------------|----------------------------------|-----------------------------------------|-------------------------------|---------------------------|
| 1 ELPT
Embedded Low Profile Terminal | 2 EHPT
Embedded High Profile Terminal | 3 EAP
Embedded Automotive Post Terminal | 4 EUT*
Embedded Universal Terminal | 5 LT
L-Terminal | 6 DT
Automotive Post & Stud Terminal | 7 UT
Universal Terminal | 8 AP
Automotive Post Terminal | 9 WNT
Wingnut Terminal | 10 DWNT
Dual Wingnut Terminal | 11 ST
Stud Terminal | 12
Cable & Plug |
|------------------------------------------------|-------------------------------------------------|---------------------------------------------------|----------------------------------------------|---------------------------|------------------------------------------------|-----------------------------------|-----------------------------------------|----------------------------------|-----------------------------------------|-------------------------------|---------------------------|

*EUT Terminal Available Fall 2010



Trojan batteries are available worldwide through Trojan's Master Distributor Network. We offer outstanding technical support, provided by full-time application engineers.

For a Trojan Master Distributor near you, call 800.423.6569 or + 1.562.236.3000 or visit www.trojanbattery.com

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